CLAIMS

Sub A1

1. A process for the preparation of an enantiomerically enriched β–lactam, which comprises enantioselective hydrolysis of the corresponding racemic β–lactam in the presence of a lactamase enzyme capable of enantioselective hydrolysis of 3-azatricyclo[4.2.1.$0^{2,5}$]non-7-en-4-one and 7-azabicyclo[4.2.0]oct-4-en-8-one.

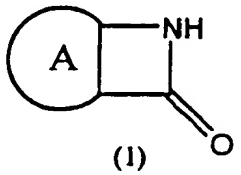
2. A process according to claim 1, wherein the lactamase enzyme is in isolated and purified form.

3. A process according to claim 1, wherein the lactamase enzyme is in the form of a cell paste or intact cells.

4. A process according to any preceding claim, which additionally comprises isolation of the enantiomerically enriched β-amino acid produced by hydrolysis.

5. A process according to claim 4, wherein the isolated β-amino acid is then subjected to a condensation reaction to reform the β-lactam ring.

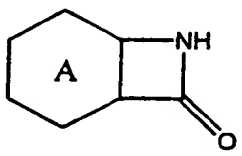
6. A process according to any preceding claim, wherein the lactam is a fused polycyclic compound of the type represented by formula (1)



(1)

wherein ring A is any monocyclic or any polycyclic ring, optionally substituted with one or more non-interfering groups.

7. A process according to claim 6, wherein the lactam has the formula



wherein ring A is unsaturated and optionally also bridged or further fused.

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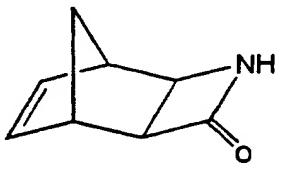
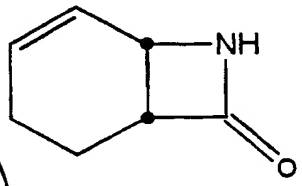
8. A process according to claim 7, wherein the lactam is 3-azatricyclo[4.2.1.$0^{2,5}$]non-7-en-4-one (2)



(2)

9. A process according to claim 1, wherein the lactam is 7-azabicyclo[4.2.0]oct-4-en-8-one (3)



(3)

10.(amended) A process according to any preceding claim, wherein the lactamase enzyme is obtainable from a microorganism having the characteristics of that available as the *Rhodococcus globerulus* strain identified as CMC103381, Accession No. NCIMB 41042.

11. Enantiomerically enriched 3-azatricyclo[4.2.1.$0^{2,5}$]non-7-en-4-one of formula (2) as shown in claim 8, in an enantiomeric excess of at least 80%.

12. Enantiomerically enriched 7-azabicyclo[4.2.0]oct-4-en-8-one of formula (3) as shown in claim 9, in an enantiomeric excess of at least 80%.

13. A lactam according to claim 11 or claim 12, wherein the enantiomeric excess is at least 95%.

14. Enantiomerically enriched levorotatory enantiomer according to any of claims 11 to 13.

15.(amended) A lactamase enzyme obtainable from a microorganism having the characteristics of that available as the *Rhodococcus globerulus* strain identified as CMC103381, Accession No. NCIMB 41042.

16.(amended) *Rhodococcus globerulus* strain identified as CMC103381, Accession No. NCIMB 41042.

Add A2